

CLAIMS

1. Distributor gear (1) with an adjustable coupling device (5) for a vehicle, in particular for a vehicle with a shiftable all-wheel drive for the distribution of an incoming drive torque via a drive shaft (2) between at least two output shafts (3, 4) whereby one output shaft (4) can be connected with the drive shaft (2) via a coupling device (5), and where the coupling device (5) can be actuated via an electric motor (9) and a drive converter device (10) located between the electric motor (9) and the coupling device (5) for the conversion of rotary movement of the electric motor (9) into a translatory actuation movement for the coupling device (5) characterized in that the electric motor (9) is integrated in a gear (7).

2. Distributor gear according to claim 1, characterized in that at least a part of the drive torque of the drive shaft (2) is transferred to one of the output shafts (4) via the gear (7).

3. Distributor gear according to claim 1 or 2, characterized in that the electric motor (9) is designed as a rotating field motor (Ket).

4. Distributor gear according to one of the claims 1 to 3, characterized in that a housing (25) of the electric motor (9) is constructed as a bearing of the gear (7).

5. Distributor gear according to one of the claims 1 to 4, characterized in that the drive converter device (10) is equipped with a spindle (16) and a spindle nut (15) on it.

6. Distributor gear according to claim 5, characterized in that the spindle (16) is rotationally fixed and that the spindle nut (15) can be rotated by the electric motor (9) whereby the spindle nut (15) has the same rotational direction as the drive shaft (2) during the closing process of the coupling device (15).

7. Distributor gear according to claim 5, characterized in that the spindle nut (15) is rotationally fixed, and in that the spindle (16) can be rotated by the electric motor (9) whereby the spindle (16) has the same rotational direction as the drive shaft (2) during the closing process of the coupling device (5).

8. Distributor gear according to one of the claims above, characterized in that the electric motor (9) is operated with transmission lubricant and that the cooling characteristics of the transmission lubricant are used for the electric motor.